FIG. 1

Prior Art

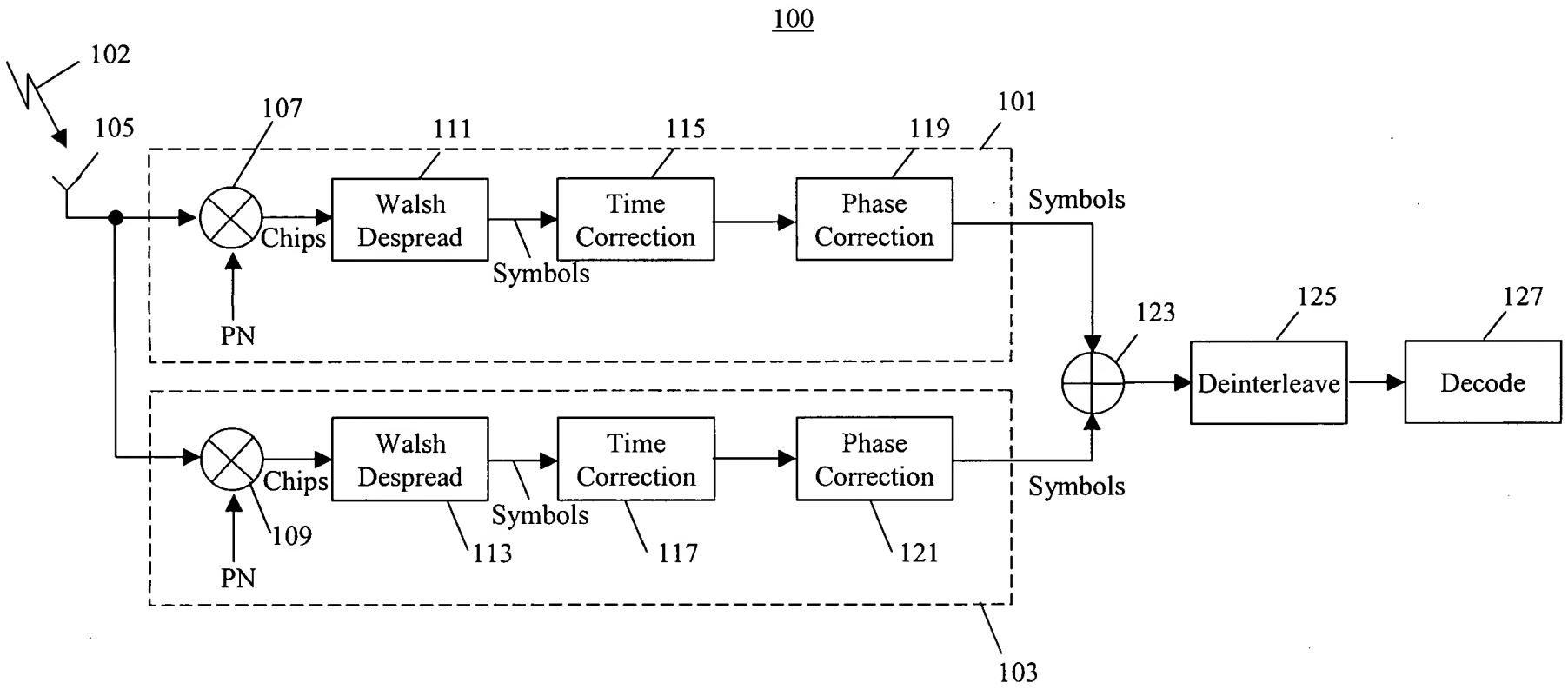
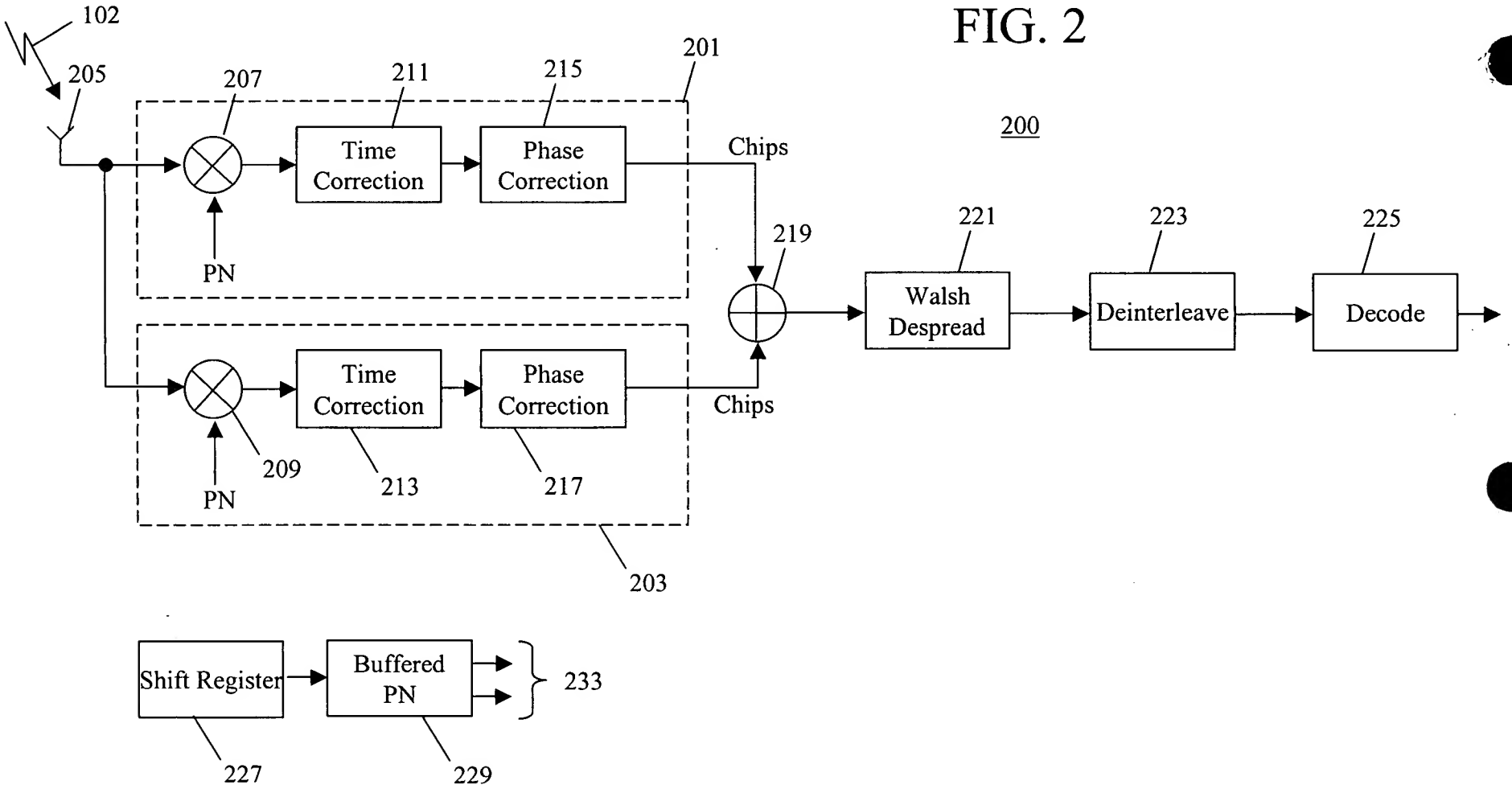


FIG. 2



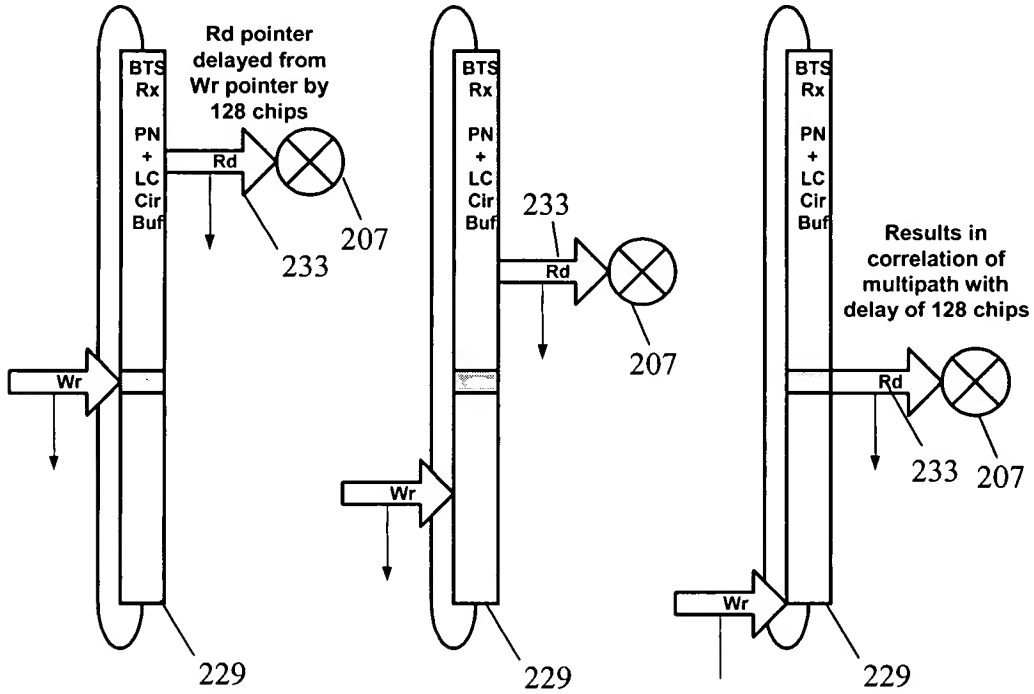

BTS Rx
PN + LC Cir Buf
Rd pointer delayed from Wr pointer by 128 chips
Rd
Wr
233
207
229
BTS Rx
PN + LC Cir Buf
233
Rd
207
Wr
229
BTS Rx
PN + LC Cir Buf
Results in correlation of multipath with delay of 128 chips
Rd
233
207
Wr
229

FIG. 3

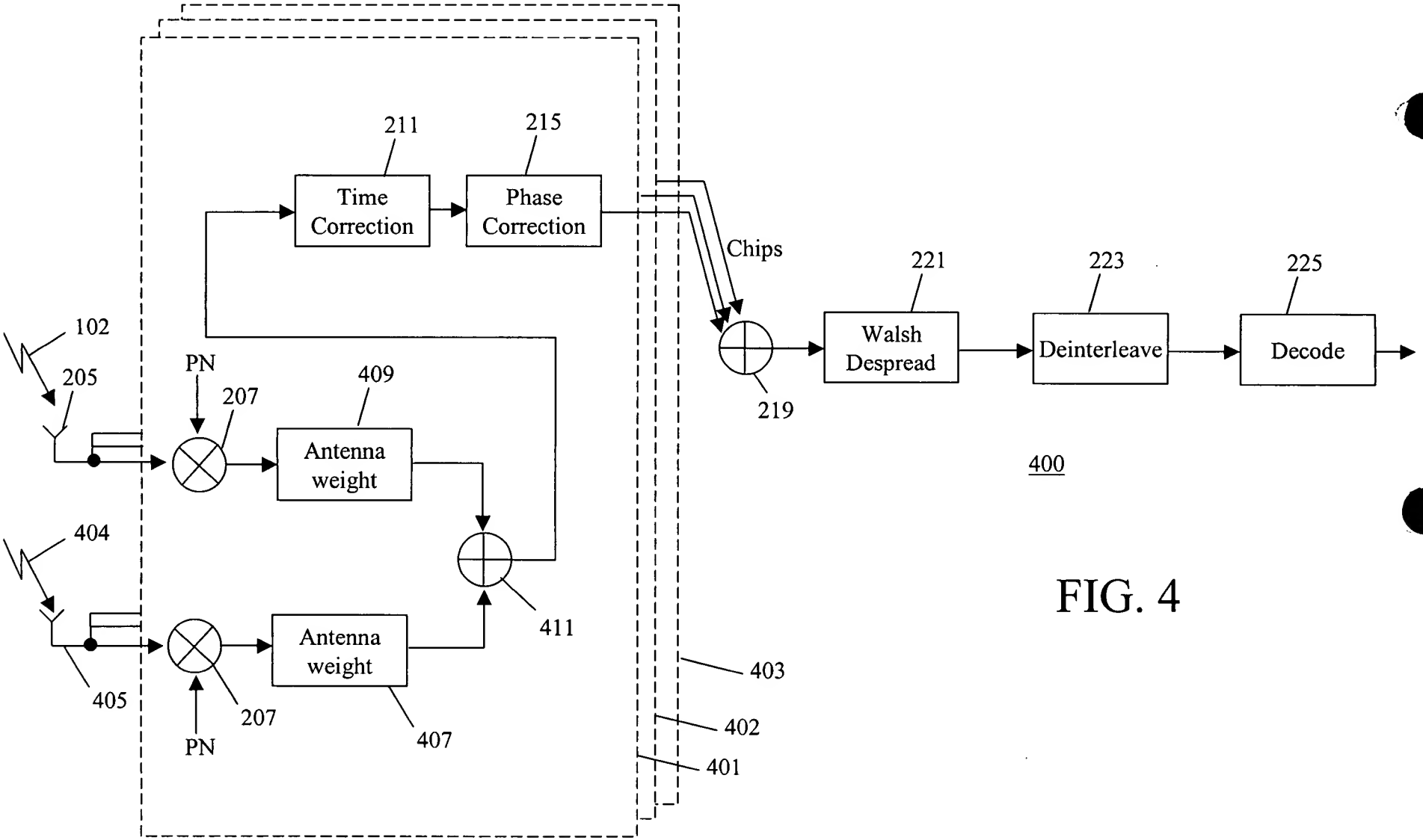

211
215
Time Correction
Phase Correction
Chips
221
223
225
Walsh Despread
Deinterleave
Decode
219
102
205
PN
207
409
Antenna weight
400
404
411
405
207
PN
Antenna weight
407
403
402
401

FIG. 4

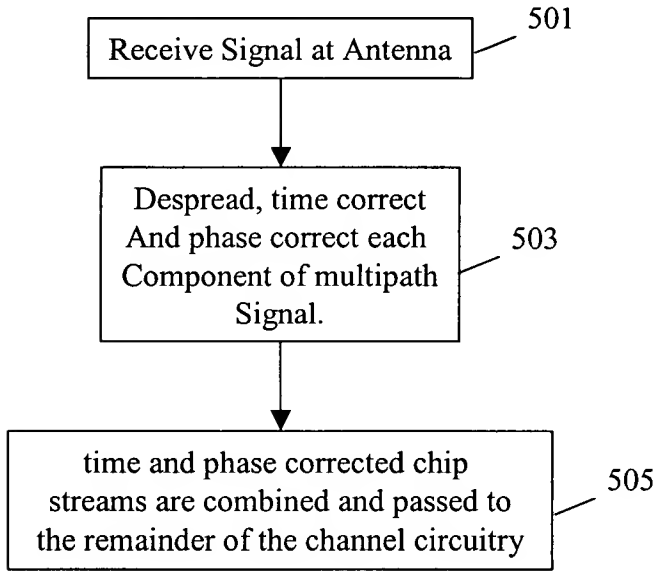

Receive Signal at Antenna
501
Despread, time correct And phase correct each Component of multipath Signal.
503
time and phase corrected chip streams are combined and passed to the remainder of the channel circuitry
505

FIG. 5

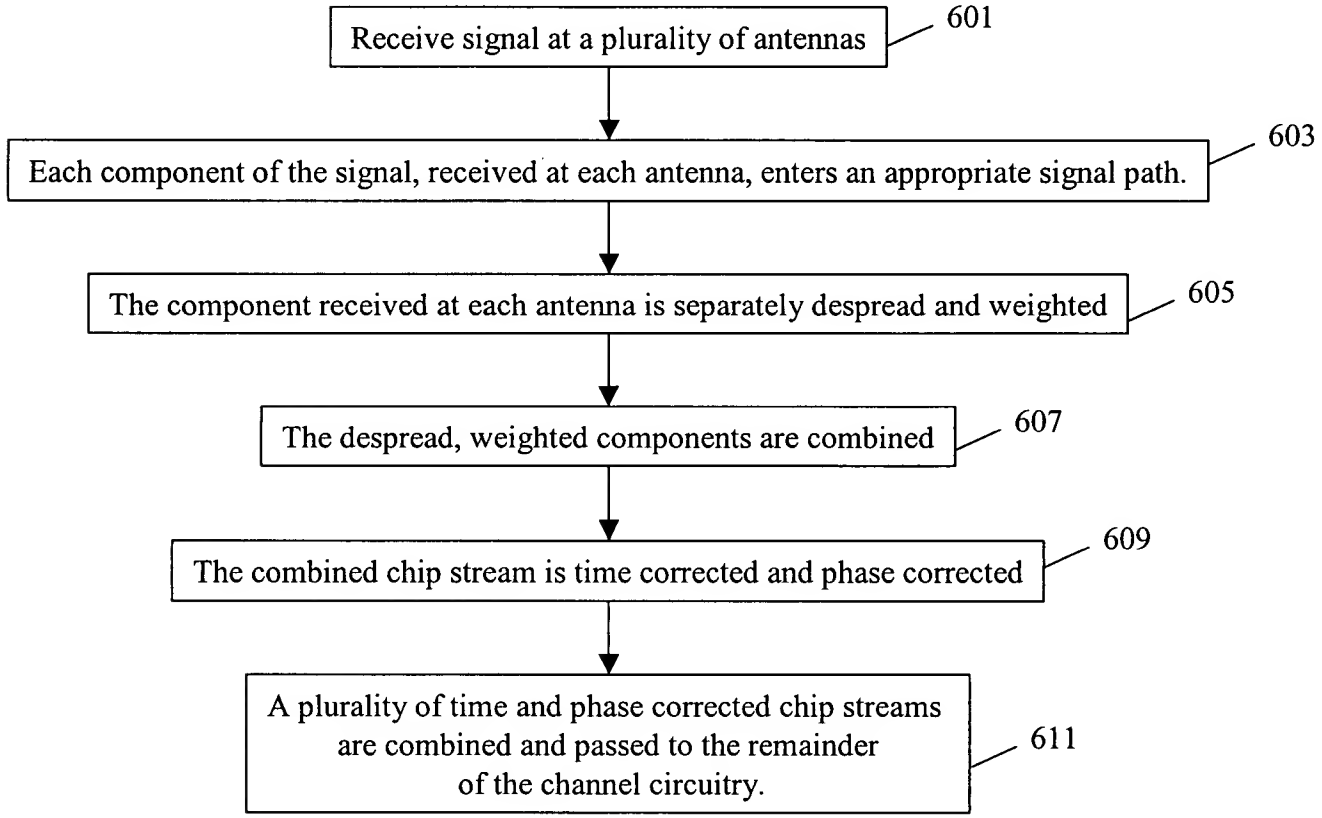
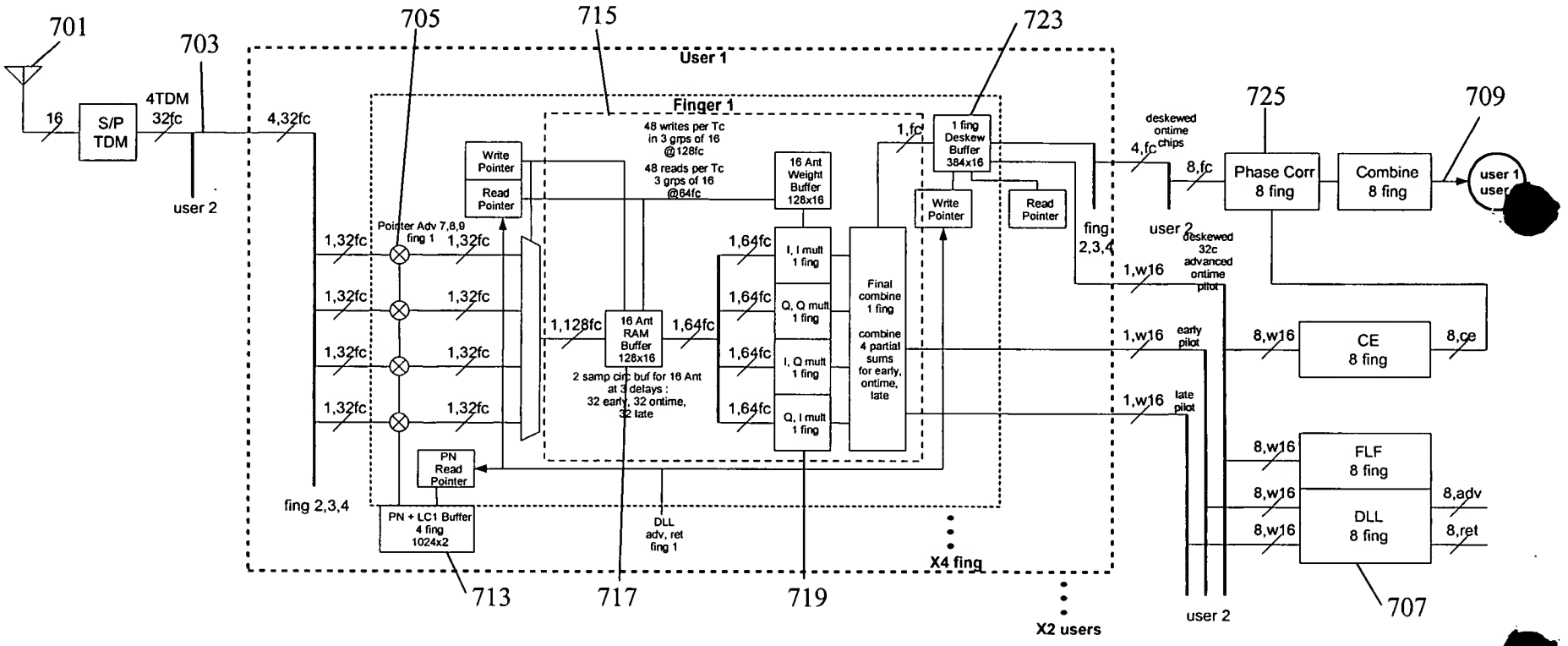

Receive signal at a plurality of antennas
601
Each component of the signal, received at each antenna, enters an appropriate signal path.
603
The component received at each antenna is separately despread and weighted
605
The despread, weighted components are combined
607
The combined chip stream is time corrected and phase corrected
609
A plurality of time and phase corrected chip streams are combined and passed to the remainder of the channel circuitry.
611

FIG. 6


701
703
705
715
723
User 1
Finger 1
16
S/P TDM
4TDM 32fc
user 2
4,32fc
48 writes per Tc in 3 grps of 16 @128fc
48 reads per Tc 3 grps of 16 @64fc
Write Pointer
Read Pointer
16 Ant Weight Buffer 128x16
1,fc
1 fing Deskew Buffer 384x16
Write Pointer
Read Pointer
fing 2,3,4
deskewed ontime chips
4,fc
8,fc
725
Phase Corr 8 fing
Combine 8 fing
709
user 1 user
user 2
deskewed 32c advanced ontime pilot
Pointer Adv 7,8,9 fing 1
1,32fc
1,64fc
I, I mult 1 fing
Q, Q mult 1 fing
I, Q mult 1 fing
Q, I mult 1 fing
Final combine 1 fing
combine 4 partial sums for early, ontime, late
1,128fc
16 Ant RAM Buffer 128x16
2 samp circ buf for 16 Ant at 3 delays : 32 early, 32 ontime, 32 late
1,w16
early pilot
late pilot
8,w16
CE 8 fing
8,ce
FLF 8 fing
DLL 8 fing
8,adv
8,ret
PN Read Pointer
PN + LC1 Buffer 4 fing 1024x2
DLL adv, ret fing 1
X4 fing
X2 users
713
717
719
707

700

FIG. 7